

X(4430) $^\pm$ $I(J^P) = ?(?)$

OMITTED FROM SUMMARY TABLE

Seen by CHOI 08 in $B \rightarrow K\pi^+\psi(2S)$ decays and confirmed by reanalysis of the same data sample in MIZUK 09. Not seen by AUBERT 09AA.

NODE=M195

X(4430) $^\pm$ MASS

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
4443$^{+15+19}_{-12-13}$	¹ MIZUK	09	BELL $B \rightarrow K\pi^+\psi(2S)$
$\bullet \bullet \bullet$ We do not use the following data for averages, fits, limits, etc. $\bullet \bullet \bullet$			
4433 $\pm 4 \pm 2$	² CHOI	08	BELL $B \rightarrow K\pi^+\psi(2S)$
¹ From a Dalitz plot analysis.			
² Superseded by MIZUK 09.			

NODE=M195M

NODE=M195M

X(4430) $^\pm$ WIDTH

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
107$^{+86+74}_{-43-56}$	³ MIZUK	09	BELL $B \rightarrow K\pi^+\psi(2S)$
$\bullet \bullet \bullet$ We do not use the following data for averages, fits, limits, etc. $\bullet \bullet \bullet$			
45 $^{+18+30}_{-13-13}$	⁴ CHOI	08	BELL $B \rightarrow K\pi^+\psi(2S)$
³ From a Dalitz plot analysis.			
⁴ Superseded by MIZUK 09.			

NODE=M195M;LINKAGE=MI
NODE=M195M;LINKAGE=CH

NODE=M195W

NODE=M195W

X(4430) $^\pm$ DECAY MODES

Mode	Fraction (Γ_i/Γ)
$\Gamma_1 \pi^+\psi(2S)$	seen
$\Gamma_2 \pi^+J/\psi$	not seen

NODE=M195W;LINKAGE=MI
NODE=M195W;LINKAGE=CH

NODE=M195215;NODE=M195

DESIG=1
DESIG=2

NODE=M195225

NODE=M195R01
NODE=M195R01

NODE=M195R01;LINKAGE=MI

NODE=M195R01;LINKAGE=AU

NODE=M195R02
NODE=M195R02

NODE=M195R02;LINKAGE=AU

$\Gamma(\pi^+\psi(2S))/\Gamma_{\text{total}}$	Γ_1/Γ
seen	⁵ MIZUK 09 BELL $B \rightarrow K\pi^+\psi(2S)$
$\bullet \bullet \bullet$ We do not use the following data for averages, fits, limits, etc. $\bullet \bullet \bullet$	
not seen	⁶ AUBERT 09AA BABR $B \rightarrow K\pi^+\psi(2S)$
5 Measured a product of branching fractions $B(\bar{B}^0 \rightarrow K^- X(4430)^+) \times B(X(4430)^+ \rightarrow \pi^+\psi(2S)) = (3.2^{+1.8+5.3}_{-0.9-1.6}) \times 10^{-5}$.	
6 AUBERT 09AA quotes $B(B^+ \rightarrow \bar{K}^0 X(4430)^+) \times B(X(4430)^+ \rightarrow \pi^+\psi(2S)) < 4.7 \times 10^{-5}$ and $B(\bar{B}^0 \rightarrow K^- X(4430)^+) \times B(X(4430)^+ \rightarrow \pi^+\psi(2S)) < 3.1 \times 10^{-5}$ at 95% CL.	

NODE=M195R01;LINKAGE=MI

NODE=M195R01;LINKAGE=AU

$\Gamma(\pi^+J/\psi)/\Gamma_{\text{total}}$	Γ_2/Γ
not seen	⁷ AUBERT 09AA BABR $B \rightarrow K\pi^+J/\psi$
7 AUBERT 09AA quotes $B(B^+ \rightarrow \bar{K}^0 X(4430)^+) \times B(X(4430)^+ \rightarrow \pi^+J/\psi) < 1.5 \times 10^{-5}$ and $B(\bar{B}^0 \rightarrow K^- X(4430)^+) \times B(X(4430)^+ \rightarrow \pi^+J/\psi) < 0.4 \times 10^{-5}$ at 95% CL.	

NODE=M195R02
NODE=M195R02

NODE=M195R02;LINKAGE=AU

X(4430) $^\pm$ REFERENCES

AUBERT 09AA PR D79 112001	B. Aubert <i>et al.</i>	(BABAR Collab.)
MIZUK 09 PR D80 031104	R. Mizuk <i>et al.</i>	(BELLE Collab.)
CHOI 08 PRL 100 142001	S.-K. Choi <i>et al.</i>	(BELLE Collab.)

NODE=M195

REFID=52940
REFID=52960
REFID=52178